IR&D Projects

What Is IR&D?

IR&D is research and development initiated and conducted by defense contractors independent of DoD control and without direct DoD funding. It includes basic and applied research, development, and systems and concept formulation studies. Thousands of IR&D projects, representing billions of investment dollars, are conducted annually.

"Contractors shall be encouraged to undertake IR&D activities that may further national security in a broad sense, may lead to a superior military capability, or may lower the cost and time required for providing that capabilty."

[DoD Directive 3204.1]

Who pays for IR&D?

Each contractor funds its own IR&D projects but recovers a portion of these costs as "indirect expenses" under defense contracts to the extent that these costs are allocable, reasonable, and not otherwise unallowable by law. On average, DoD contractors currently recover half of their IR&D costs.

What IR&D Costs Are Allowable?

Allowable IR&D costs involve activities that: 1) enable superior performance of future weapons; 2) reduce DoD acquisition and life-cycle costs; 3) strengthen the U.S. defense industrial/technology base; 4) enhance U.S. industrial competitiveness; 5) promote development of critical technologies; 6) promote effective application of dual-use technologies; or 7) provide technologies for achieving environmental benefits.

DoD's IR&D Program

The DoD IR&D Program promotes industry IR&D activities to address U.S. defense needs and DoD use of IR&D accomplishments to meet these needs. The key to a successful IR&D program is effective two-way communications between the DoD and industry about DoD technological needs and contractor IR&D activities.

Providing Information to Industry

The DoD is prohibited by law from infringing on the independence of contractors to choose which technologies to pursue in their independent research and development activities. However, it is DoD policy to enhance the efficiency and productivity of these activities by providing information useful to contractors in their IR&D planning. See the back panel of this brochure to learn more on how to obtain information about DoD R&D plans, DoD in-house and funded R&D, defense mission needs, and military operational requirements.

Utilizing IR&D Results

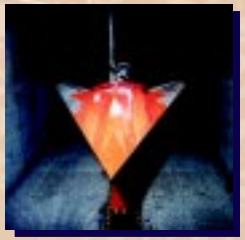
IR&D project summaries submitted to DTIC and Technical Interchange Meetings (TIMs) between DoD and industry representatives are important means of informing potential DoD customers about contractor IR&D accomplishments. Submissions to DTIC and participation in TIMs are voluntary. TIMs also provide forums for reviewing defense needs and the applicability of IR&D activities to these needs. For additional information about submitting to DTIC and about scheduling and conducting TIMs, contact the DoD IR&D Program Manager or go to the various IR&D program Web sites identified on the back panel of this brochure.

DTIC's IR&D Database

The Defense Technical Information Center (DTIC) collects and maintains thousands of IR&D project summaries submitted by defense contractors in a restricted-access database. The Database is now available on-line to authorized Government personnel through the DoD Secure STINET system. Secure STINET provides an efficient and effective means of disseminating information about contractor proprietary capabilities to potential DoD customers, while protecting this information from access outside the DoD.

Putting IR&D to Work

It is DoD policy to make effective use of IR&D project information obtained from contractors. To avoid in-house and contract R&D projects that would duplicate IR&D work, DoDD 3204.1 directs DoD components to consider contractor IR&D activities when planning, programming and budgeting for DoD R&D. DoD personnel also search the IR&D database to identify new technological capabilities applicable to Defense needs.



For example, a search of the database identified a Pressure Sensitive Paint (PSP) technology that could be used by the Air Force Arnold Engineering Development Center (AEDC) to reduce aircraft development time. Acquisition of this PSP technology developed by contractor IR&D has enabled AEDC to avoid a multimillion-dollar R&D effort to develop a comparable technology and to save an additional $1-2 million and up to six months of wind tunnel time in tests of each new aircraft model. Use of this technology has also provided the contractor with wind tunnel data on their PSP technology.

Publicize your company's technical capabilities to potential DoD customers by submitting your IR&D project descriptions to DTIC. See the back panel of this brochure for more information.

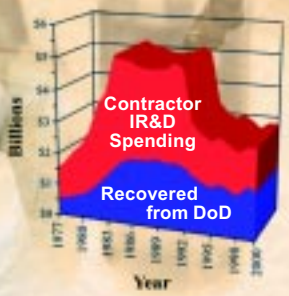
IR&D Benefits

IR&D activities can result in substantial benefits to both contractors and DoD. For contractors, successful IR&D efforts generate increased sales and profits. For DoD, technologies created by IR&D enable new and improved defense capabilities and reduce defense acquisition costs.

The HG1700 Inertial Measurement Unit (IMU), used in guidance of missiles and smart munitions, provides a dramatic example of the potential benefits of IR&D to both contractors and DoD. In the early 1990s, a contractor invested approximately $10 million in an IR&D project to develop an improved and lower-cost IMU for smart munitions. DoD now buys the resulting IMU for less than one third the unit cost of its predecessor and has incorporated this improved IMU in more than two-dozen defense systems. The reduced cost and improved capabilities have enabled a substantial increase in the use of these IMUs in guided munitions. Annual unit sales by the contractor have increased by more than 10-fold and are still growing. Annual revenues from sale of this IMU now total approximately $100 million.

IR&D Spending and Recovery by Major Contractors

As major defense contractors reduced IR&D spending during the 1990s, the average amount of "allowable" IR&D costs allocable to defense contracts has increased from less than 80 percent during 1984-1995, to more than 94 percent since 1996. As a result, the average amount of IR&D costs recovered on DoD contracts has increased from under 43 percent during 1984-1995, to over 50 percent since 1996.



How to Submit IR&D Data to DoD

Download the IR&D Contributors Guide and the template for IR&D submissions at: http://www.dtic.mil/dtic/dtic-o/oc/oca/ird.htm or contact the DTIC IR&D Database Program Manager at:

Defense Technical Information Center
ATTN: IR&D Program (DTIC-OCA)
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-6218
Telephone: (703) 767-9039

DoD R&D and Needs Documents

Information on DoD's R&D projects and plans, mission needs, and operational requirements are available from a variety of sources, some classified and some restricted to U.S. Government personnel and contractors registered with DTIC. Visit the following Web sites for more information:

DoD
http://www.dtic.mil/ird
Air Force
http://extra.afrl.af.mil/stplans/pln-req2.htm
Army
http://www.saalt.army.mil
Navy
http://nardic.onr.navy.mil

IR&D Program Web Sites and POCs

The DoD and the individual Military departments each maintain IR&D Program Web sites:

DoD
http://www.dtic.mil/ird
Air Force
http://www.afrl.af.mil/ird
Army
http://www.arl.army.mil/tto/ird
Navy
http://www.onr.navy.mil/sci_tech/industrial/irad

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Information for Industry

The Department of Defense

Independent Research and Development (IR&D) Program

It is DoD policy to encourage contractor IR&D activities and to ensure effective use of IR&D accomplishments for defense purposes. Contractors can publicize their IR&D accomplishments to DoD decisionmakers by submitting IR&D project descriptions for inclusion in the IR&D Database.